

The morphological anomalies in ticks collected in the wild

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Morphological anomalies in ticks have been the subject of research in experimental conditions mainly. There are still few information about their occurrence in the natural environment. The described study was conducted on *Ixodes ricinus* and *Dermacentor reticulatus* ticks collected from vegetation in the Chernobyl Exclusion Zone (CEZ) in Ukraine, and from the Košice and Nitra Regions in Slovakia. There were collected 405 *D. reticulatus* ticks (179 males and 226 females) and 85 *I. ricinus* ticks (60 females and 25 males) of in CEZ, Ukraine, 214 (120 females and 94 males) of *I. ricinus* and 58 (28 females and 30 males) of *D. reticulatus* in the Košice Region, 259 (60 females, 79 males, 120 nymphs) of *I. ricinus* in Nitra Region. In CEZ, morphological anomalies in *D. reticulatus* ticks were detected in 22.6% and 17.9% of females and males respectively, in *I. ricinus* in 3.3% and 12% of females and males respectively. In Slovakia, anomalies were found in 3.4% females of *D. reticulatus* from Košice Region, in 0.8% females of *I. ricinus* from the Nitra Region. The morphological abnormalities observed were asymmetry in relation to the longitudinal axis of the body, atrophy or leg agenesis (including lack of coxa plate), additional foot segments, lack of spiracular plate, dwarfism, festoons reduction, melanisation manifested in a visibly darker colour of the whole body, the lack of anal groove. The most common disadvantage was asymmetry, which is almost half of the cases of anomalies in both species of ticks, and dwarfism, however, it was observed only in females and males of *D. reticulatus*. Melanization and reduction in the number of festoon patches was also observed only in males and females of *D. reticulatus*. No morphological anomalies were found in nymph of *I. ricinus*.